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SITE SEARCH



Method of downloading large data based on radio communication protocol

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Patent Agency Code	31190	Patent Agent	chen liang
Abstract			

The method of downloading large data based on radio communication protocol includes setting special web page program module in both client's radio electronic equipment and radio network server, sending one request of downloading large data by the radio electronic equipment to the server, reading out corresponding file from one data base by the server, cutting the file into several data blocks for radio network transmission, returning the number file data blocks to the electronic equipment, sending data block downloading commands by the electronic equipment to the server, transmitting the data blocks by the server based on the commands to the electronic equipment, and assembling the received data blocks into complete file in the electronic equipment.

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Application: 01126333

Utilize the wireless telecommunications agreement to download the method of large-scale data

The technical field

The invention relates to a method of utilizing the wireless telecommunications agreement to download large-scale data, Server on the wireless network when receiving the large-scale data request of download that sends by the electronic installation of customer end. This server is promptly according to the content of this request, Read corresponding file in a database, Transmit the restriction of data again according to the wireless network, Cut apart into a plurality of block datas with this file, And reply this electronic installation with total number of these block datas, Make this electronic installation send the order that can download each block data data to this server one by one, Make this server convey each block data of this file to this electronic installation according to the preface one by one according to these orders, And then make this electronic installation can be with each block data of receiving, Make up into a complete file, Reach and break through the unable restriction of downloading large-scale data of wireless telecommunications agreement.

The background art

Wireless telecommunications agreement (WAP) is a communication agreement that provides the service on net under the environment of wireless telecommunications, make us can be easily by the action terminating machine (if: mobile phone, digital personal assistant ware ... etc.) obtain on the wireless network instant leading (if: latest news, quotations on the stock market ... etc.), it must be through carrying inconvenient PC to replace in the past us, or the online is dialed and connected to the high notebook computer of price.

Much more more yet this wireless telecommunications agreement is limited arrives the big or small restriction of wireless network way (Gate Way) transmission data, so that download request at every turn, only can obtain how many K's (1000Byte) data, can't obtain information, to the data of downloading other great volume types, and just unable realization.

The disclosure of the invention

In view of this, can't download the shortcoming of mass data for improving above-mentioned wireless telecommunications agreement, inventor's process is permanent to be made great efforts to study and tests, and a method of utilizing the large-scale data of wireless telecommunications agreement download of the invention is designed in development finally.

The objective of the invention is to respectively on the electronic installation and the server on the wireless network of a customer end. The settlement has a special webpage programming module. When this module form of electronic installation application sends the large-scale data request of a download to this server, This server is promptly according to the content of this request, Read corresponding file in a database, Succeed the restriction of transmitting data again according to the wireless network, Cut apart into a plurality of block datas with this file, And reply this electronic installation with total number of these block datas with this module form, Make this electronic installation send the order that can download each block data data to this server one by one, Make this server convey each block data of this file to this electronic installation according to the preface one by one according to these orders, And then make this electronic installation can be with each block data of receiving, Make up into a complete file, Reach and break through the unable restriction of downloading large-scale data of wireless telecommunications agreement.

Another purpose of the invention lies in setting for on this electronic installation to have a download progress to indicate a strip procedure, when this electronic installation is accepted by each block data of this file of this server conveying, will indicate the strip to show most likely by this display promptly, and when receiving the block data of this file, unit length of strip should be indicated to the extension promptly, with the progress of suggestion user download.

The description drawings

For doing further understanding and understanding to purpose, shape, structure device characteristic and the efficiency of the invention, lift embodiment cooperation figure now, the elaboration as follows:
Fig. 1 is the flow chart of invention customer end.

Fig. 2 is the flow chart of invention service end.

The detailed description of the invention

The invention is one kind " utilize wireless telecommunications agreements download the method of large-scale data ", Respectively the electronic installation of a customer end (if: digital personal assistant ware, mobile phone ... etc.) and the wireless network on the server on, The settlement has a special webpage programming module (if: dynamic web page technique (ASP), When this module form of electronic installation application sends the large-scale data request of a download to this server, This server is promptly according to the content of this request, Read corresponding file in a database, And then according to the restriction of wireless network transmission data, Cut apart into a plurality of block datas with this file, And reply this electronic installation with total number of these block datas with this module form, Make this electronic installation send the order that can download each block data to this server one by one, Make this server convey each block data of this file to this electronic installation according to the preface one by one according to these orders, And each block data that makes this electronic installation receive, Make up into a complete file, Show by a display, Supply the user to browse.

In the invention, it has a download progress to indicate a strip procedure to set for on this electronic installation, when this electronic installation is accepted by each block data of this server conveying, will indicate the strip to show most likely by the display promptly, and when receiving one of file block data, increases promptly and to indicate unit length of strip, with the progress of suggestion user download.

In the invention, download this each block data of file during when this electronic installation, and when being stopped downloading, then store the progress of having downloaded through a memory, and the file of having downloaded, when making this electronic installation download this file again next time, can never download partial originated block data, proceed to download this part of not downloading, supply the user to select to stop downloading during downloading, when making this electronic installation download again once more, can continue the download from the interrupt.

In the invention, the part of download can be selected according to the quilt to this electronic installation, and the download order of sending each block data of this part one by one makes this server order according to these to this server, will be somebody's turn to do one by one to be downloaded partial each block data of this file by the selection, according to preface conveying to this electronic installation, in order to do the wherein a plurality of passages download of this file of user's optional.

Whether in the invention, this electronic installation can be stored the file of download in a memory, and then through a display demonstration suggestion of whether selecting to browse this file, supply the

user to select to browse, when browsing as if the quilt selection, then shows this file through the display.

In the invention, it is shown to consult Fig. 1, starts this electronic installation as the user and downloads wireless telecommunications when reaching an agreement on large-scale data on (WAP), and this electronic installation will be handled according to following step:

(101), at first, use the form of special webpage programming module to send download data request to this server;

(102), read the total number of downloading by the block data of server answer again;

(103), show a suggestion of selecting whole downloads or part to download through a display, and then judge and selected all to download? If proceed following step; Otherwise, carry out step (109);

(104), send one by one and download the ordering to the server of each block data data;

(105), read these block datas of download, and indicate the strip to show the download progress through the display, download the progress with the suggestion user;

(106), do you judge and to accomplish the download? If proceed following step; Otherwise, carry out step (104);

(107), each block data that will download makes up into a complete file;

(108), show this file by the display, supply the user to browse, then, finish;

(109), from the originated block data of chosen part download, send the download of each block data data one by one and order to the server;

(110), read these block datas of download, and indicate the strip to show the download progress through the display, download the progress with the suggestion user;

(111), do you judge and to accomplish the download? If carry out step (107); Otherwise, proceed step (109).

In the invention, it is shown to consult Fig. 2, and the server system on the wireless network handles according to following step:

(201), do you at first, judge and to receive the download data request that sends by the form of the special webpage programming module of customer end application? If carry out following step; Otherwise, proceed step (201);

(202), download the data request according to this and in a database, read the file to asking;

(203), according to the restriction of wireless network conveying data size, cut apart into a plurality of block datas with this file;

(204), with the form of the special webpage programming module of total number application of these block datas, the conveying is to sending the customer end of downloading the data request;

(205), then, the download order of sending according to the customer end again conveys these block datas to the customer end according to the preface one by one;

(206), do you judge and to accomplish the conveying? If finish; Otherwise, proceed step (205).

So, the restriction that breaks through the wireless telecommunications agreement and download large-scale data can be reached to the method of the invention, downloads the large-scale data of each type.

What is said above, only for the best concrete embodiment of the invention, the structural feature of the invention is not limited to herein, anyly is familiar with this technical field person in invention field, can think easily and change or decoration, all can contain in enclosed claim scope.

CLAIMS:

1. method of utilizing wireless telecommunications agreements to download large-scale data, Respectively on the electronic installation and the server on the wireless network of a customer end, The settlement has a special webpage programming module, When this module form of electronic installation application sends the large-scale data request of a download to this server, This server is promptly according to the content of this request, Read corresponding file in a database, And then according to the restriction of wireless network transmission data, Cut apart into a plurality of block datas with this file, And reply this electronic installation with total number of these block datas with this module form, Make this electronic installation send the order that can download each block data data one by one, To this server, And make this server convey each block data of this file to this electronic installation according to the preface one by one according to these orders, And then each block data that makes this electronic installation receive, Make up into a complete file, And show by a display.
2. the method of utilizing wireless telecommunications agreements to download large-scale data according to claim 1 characterized in, it has a download progress to indicate a strip procedure to set for on this electronic installation, when this electronic installation is accepted by each block data of this server conveying, will indicate the strip to show most likely by the display promptly, and when receiving block data of file, increase promptly and to indicate unit length of strip, with the progress of suggestion download.
3. the method of utilizing wireless telecommunications agreements to download large-scale data according to claim 2 characterized in, downloads these block datas during when this electronic installation, and when being stopped downloading, then stores the progress of having downloaded through a memory, and the file of having downloaded, when making this electronic installation download this file again next time, can never download partial originated block data, proceeds to download this part of not downloading.
4. the method of utilizing the wireless telecommunications agreement to download large-scale data according to claim 3 characterized in, the part of download can be selected according to the quilt to this electronic installation, and the download order of sending these block data data one by one makes this server order according to these to this server, will be somebody's turn to do one by one to be downloaded these partial block datas by the selection, according to preface conveying to this electronic installation.
5. the method of utilizing wireless telecommunications agreements to download large-scale data according to claim 4 characterized in, this electronic installation can be for a digital personal assistant ware.
6. the method of utilizing wireless telecommunications agreements to download large-scale data according to claim 4 characterized in, this electronic installation can be for a mobile phone.
7. the method of utilizing the wireless telecommunications agreement to download large-scale data

according to claim 1 characterized in, this special webpage programming module can be technological for a dynamic web page.

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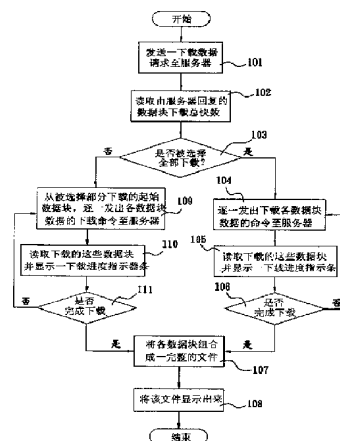
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权利要求书 1 页 说明书 4 页 附图 2 页

[54] 发明名称 利用无线通讯协定下载大型数据的方法

[57] 摘要

本发明提供一种利用无线通讯协定下载大型数据的方法,是分别在一客户端的无线电子装置及一无线网络上的服务器上,设定有一特殊网页程序模块,当该电子装置运用该模块格式,发送一下载大型数据请求至该服务器时,该服务器即依据该请求的内容,自一数据库中读取对应的文件,然后再根据无线网络传输数据的限制,将该文件分割成多个数据块,并将这些数据块的总块数以该模块格式回复该电子装置,令该电子装置逐一发出可下载各数据块数据的命令,至该服务器,而使该服务器依据这些命令,逐一将该文件的各数据块依序传送至该电子装置,如此,该电子装置可藉将收到的各数据块,组合成一完整的文件,达成突破无线通讯协定无法下载大型数据的限制。



权 利 要 求 书

1. 一种利用无线通讯协定下载大型数据的方法, 分别在一客户端的电子装置及无线网络上的服务器上, 设定有一特殊网页程序模块, 当该电子装置运用该模块格式发送一下载大型数据请求至该服务器时, 该服务器即依据该请求的内容, 自一数据库中读取对应的文件, 然后再根据无线网络传输数据的限制, 将该文件分割成多个数据块, 并将这些数据块的总块数以该模块格式回复该电子装置, 令该电子装置逐一发出可下载各数据块数据的命令, 至该服务器, 而使该服务器依据这些命令逐一将该文件的各数据块依序传送至该电子装置, 进而使该电子装置将收到的各数据块, 组合成一完整的文件, 并藉由一显示器显示出来。

2. 如权利要求 1 所述的利用无线通讯协定下载大型数据的方法, 其特征在于, 该电子装置上设定有一下载进度指示条程序, 当该电子装置接受到由该服务器传送的各数据块时, 即藉由显示器将该指示条显示出来, 并在接收到文件的一个数据块时, 即增加该指示条一个单位长度, 以提示下载的进度。

3. 如权利要求 2 所述的利用无线通讯协定下载大型数据的方法, 其特征在于, 当该电子装置进行下载这些数据块的期间, 而被终止下载时, 则通过一存储器储存已下载的进度, 以及已下载的文件, 令该电子装置下次再进行下载该文件时, 可从未下载部分的起始数据块, 继续进行下载该未下载的部分。

4. 如权利要求 3 所述的利用无线通讯协定下载大型数据的方法, 其特征在于, 该电子装置可依据被选择下载的部分, 逐一发出这些数据块数据的下载命令至该服务器, 使该服务器依据这些命令, 逐一将该被选择下载部分的这些数据块, 依序传送至该电子装置。

5. 如权利要求 4 所述的利用无线通讯协定下载大型数据的方法, 其特征在于, 该电子装置可为一数字个人助理器。

6. 如权利要求 4 所述的利用无线通讯协定下载大型数据的方法, 其特征在于, 该电子装置可为一移动电话。

7. 如权利要求 1 所述的利用无线通讯协定下载大型数据的方法, 其特征在于, 该特殊网页程序模块可为一动态网页技术。

说明书

利用无线通讯协定下载大型数据的方法

技术领域

本发明涉及一种利用无线通讯协定下载大型数据的方法，是无线网络上的服务器接收到一由客户端的电子装置发送的下载大型数据请求时，该服务器即依据该请求的内容，自一数据库中读取对应的文件，再根据无线网络传输数据的限制，将该文件分割成多个数据块，并将这些数据块的总块数回复该电子装置，令该电子装置逐一发出可下载各数据块数据的命令至该服务器，使该服务器依据这些命令逐一将该文件的各数据块依序传送至该电子装置，进而使该电子装置可将收到的各数据块，组合成一完整的文件，达成突破无线通讯协定无法下载大型数据的限制。

背景技术

无线通讯协定（WAP）是一在无线通讯的环境下提供上网服务的一种通讯协定，令人们可轻易地藉由行动终端机（如：移动电话、数字个人助理器...等）来获取无线网络上的即时领先（如：即时新闻、股市行情...等），取代过去我们必须通过携带不便的个人电脑，或价格高昂的笔记型电脑拨接上网。

然而，该无线通讯协定受限到无线网络途径（Gate Way）传输数据大小的限制，以致每次的下载请求，仅能获得几 K（1000Byte）的数据，无法获得更多的信息，对于下载其他较大量类型的数据，便无法实现。

发明内容

有鉴于此，为改进上述无线通讯协定无法下载大量数据的缺点，发明人经过长久努力研究与实验，终于开发设计出本发明的一种利用无线通讯协定下载大型数据的方法。

本发明的目的在于分别在一客户端的电子装置及一无线网络上的服务器上，设定有一特殊网页程序模块，当该电子装置运用该模块格式发送一下载大型数据请求至该服务器时，该服务器即依据该请求的内容，自一数据库中读取对应的文件，嗣再根据无线网络传输数据的限制，将该文件分割成多个数据块，并将这些数据块的总块数以该模块格式回复该电子装置，令该电子装置逐一发出可下载各数据块数据

的命令至该服务器，使该服务器依据这些命令逐一将该文件的各数据块依序传送至该电子装置，进而使该电子装置可将收到的各数据块，组合成一完整的文件，达成突破无线通讯协定无法下载大型数据的限制。

本发明的另一目的在于系该电子装置上设定有一下载进度指示条程序，当该电子装置接受到由该服务器传送的该文件的各数据块时，即藉由该显示器将该指示条显示出来，并在接收到该文件的数据块时，即加长该指示条一个单位长度，以提示使用者下载的进度。

附图说明

为能对本发明的目的、形状、构造装置特征及其功效，做更进一步的认识与了解，兹举实施例配合附图，详细说明如下：

图 1 是本发明客户端的流程图。

图 2 是本发明服务端的流程图。

具体实施方式

本发明是一种“利用无线通讯协定下载大型数据的方法”，分别在一客户端的电子装置（如：数字个人助理器、移动电话...等）及无线网络上的服务器上，设定有一特殊网页程序模块（如：动态网页技术（ASP）），当该电子装置运用该模块格式发送一下载大型数据请求至该服务器时，该服务器即依据该请求的内容，自一数据库中读取对应的文件，然后再根据无线网络传输数据的限制，将该文件分割成多个数据块，并将这些数据块的总块数以该模块格式回复该电子装置，令该电子装置逐一发出可下载各数据块数据的命令至该服务器，使该服务器依据这些命令逐一将该文件的各数据块依序传送至该电子装置，而使该电子装置将收到的各数据块，组合成一完整之文件，藉由一显示器显示出来，供使用者浏览。

在本发明中，该电子装置上设定有一下载进度指示条程序，当该电子装置接受到由该服务器传送的各数据块时，即藉由显示器将该指示条显示出来，并在接收到文件之一个数据块时，即增加该指示条一个单位长度，以提示使用者下载的进度。

在本发明中，当该电子装置进行下载该文件各数据块的期间，而被终止下载时，则通过一存储器储存已下载的进度，以及已下载之文件，令该电子装置下次再进行下载该文件时，可从未下载部分的起始数据块，继续进行下载该未下载的部

分，供使用者可于下载期间，选择终止下载，令该电子装置再次重新下载时，可从中断处继续下载。

在本发明中，该电子装置可依据被选择下载的部分，逐一发出该部分各数据块数据的下载命令至该服务器，使该服务器依据这些命令，逐一将该被选择下载部分的该文件各数据块，依序传送至该电子装置，俾使用者可选择该文件其中若干片段下载。

在本发明中，该电子装置可将下载的文件储存于一存储器中，然后再通过显示器显示一是否选择浏览该文件的提示，供使用者选择是否浏览，若被选择浏览时，则通过显示器将该文件显示出来。

在本发明中，请参阅图 1 所示，当使用者启动该电子装置进行下载无线通讯协定（WAP）上的大型数据时，该电子装置将依据下列的步骤进行处理：

（101）首先，运用特殊网页程序模块的格式发送一下载数据请求至该服务器；

（102）再读取由服务器回复的数据块下载的总块数；

（103）通过一显示器显示一选择全部下载或部分下载的提示，然后再判断是否被选择全部下载？若是，继续进行下列的步骤；否则，进行步骤（109）；

（104）逐一发出下载各数据块数据的命令至服务器；

（105）读取下载的这些数据块，并通过显示器将下载进度指示条显示出来，以提示使用者下载进度；

（106）判断是否完成下载？若是，继续进行下列步骤；否则，进行步骤（104）；

（107）将下载的各数据块组合成一完整的文件；

（108）藉由显示器将该文件显示出来，供使用者浏览，然后，结束；

（109）从被选择部分下载的起始数据块，逐一发出各数据块数据的下载命令至服务器；

（110）读取下载的这些数据块，并通过显示器将下载进度指示条显示出来，以提示使用者下载进度；

（111）判断是否完成下载？若是，进行步骤（107）；否则，继续进行步骤（109）。

在本发明中，请参阅图 2 所示，无线网络上的服务器系依据下列的步骤进行处理：

（201）首先，判断是否收到由客户端运用特殊网页程序模块的格式发送的下载数据请求？若是，进行下列的步骤；否则，继续进行步骤（201）；

（202）依据该下载数据请求自一数据库中，读取对应该请求的文件；

说明书附图

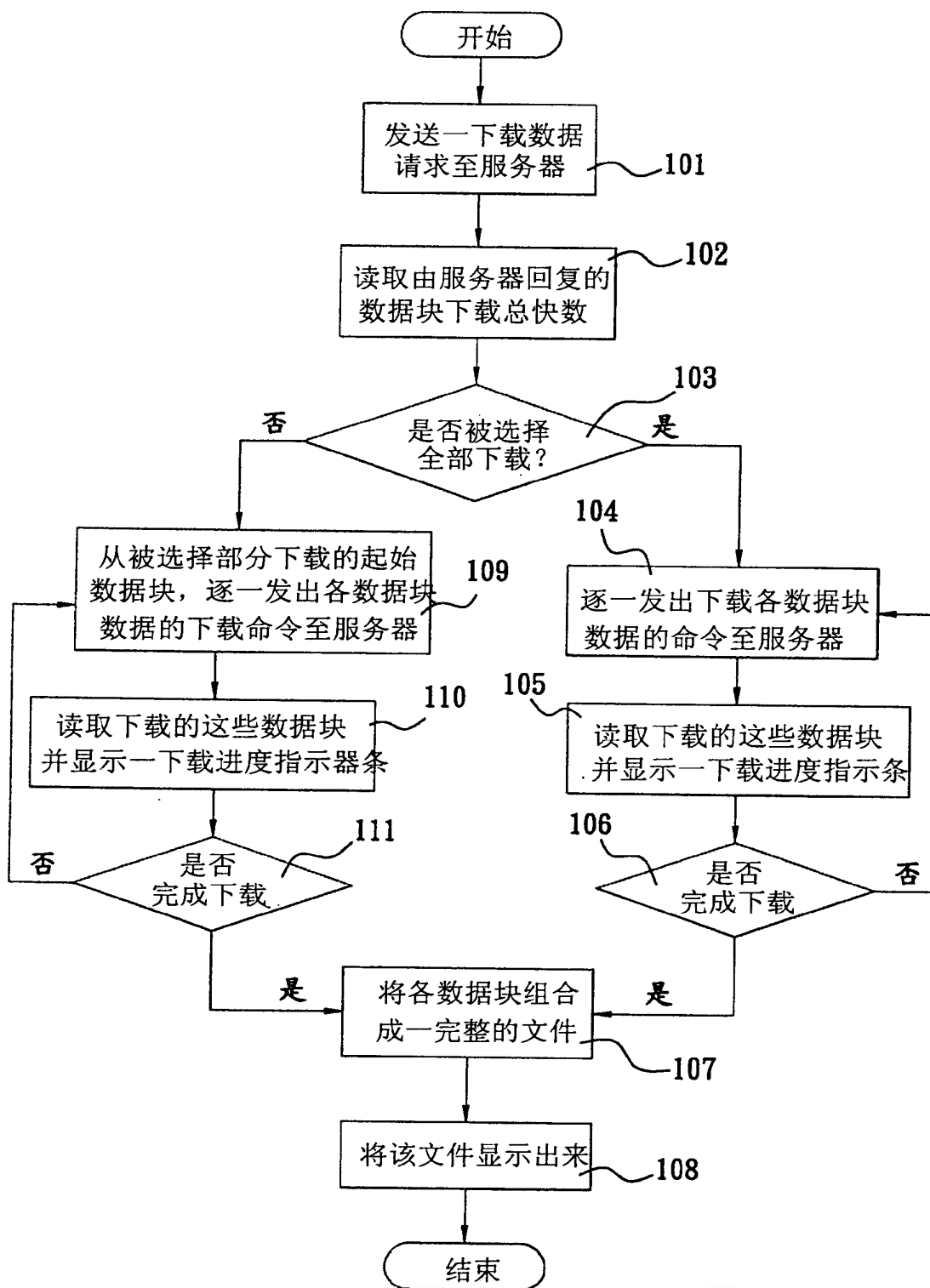


图 1

(203) 依据无线网络传送数据大小的限制，将该文件分割成多个数据块；

(204) 将这些数据块的总块数运用特殊网页程序模块的格式，传送至发出下载数据请求的客户端；

(205) 然后，再依据客户端发出的下载命令，逐一将这些数据块依序传送至客户端；

(206) 判断是否完成传送？若是，结束；否则，继续进行步骤(205)。

如此，本发明的方法，可达成突破无线通讯协定下载大型数据的限制，进行下载各类型的大型数据。

以上所述，仅为本发明最佳具体实施例，本发明的构造特征并不局限于此，任何熟悉本技术领域者在本发明领域内，可轻易思及的变化或修饰，皆可涵盖在所附的权利要求范围内。

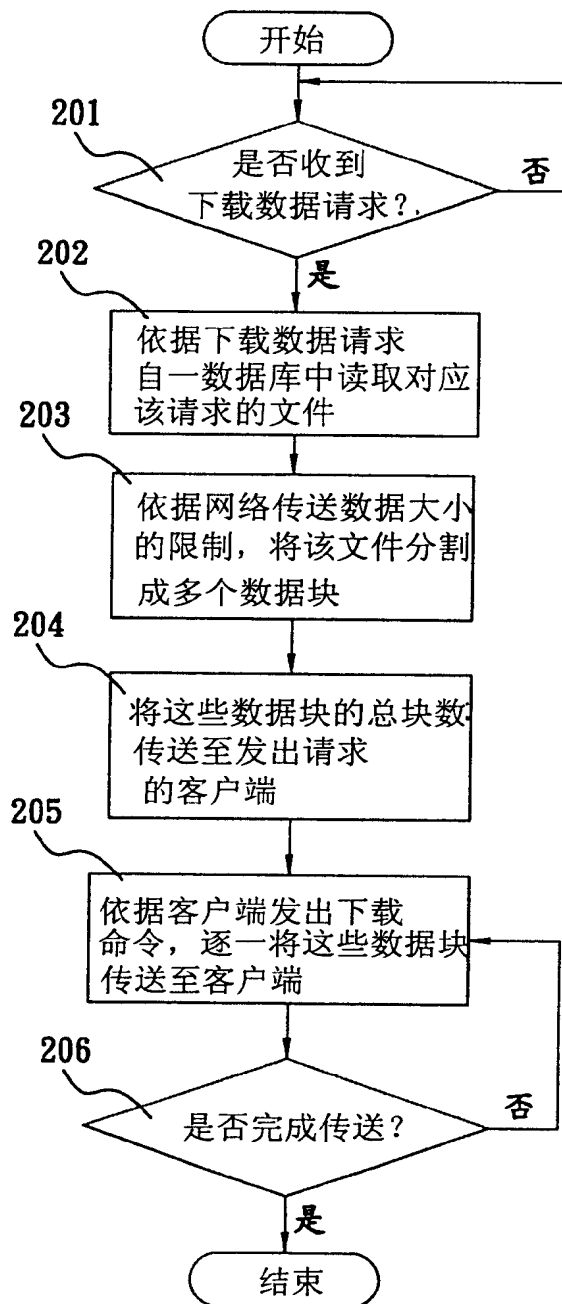


图 2